



MTC 6614.1
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Qi Wang et al.

Serial No. 09/804,733

Filed March 13, 2001

Confirmation No. 2031

For RECOMBINANT PROTEINS CONTAINING REPEATING UNITS

June 14, 2001

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS,

SIR:

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R. 1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56, applicants submit copies of the references listed on the attached PTO/SB/08A for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record therein.

*

Respectfully submitted,

G. Harley Blosser, Reg. No. 33,650
SENNIGER, POWERS, LEAVITT & ROEDEL
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

GHBmkd

Express Mail Label No. EL801507325US

PTO/SB/08A				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/804,733
				Filing Date	March 13, 2001
				Confirmation Number	2031
				First Named Inventor	Qi Wang et al.
Sheet	2	of	4	Attorney Docket No.	MTC 6614.1

	18	5,608,152		Kridl et al.	03-04-1997
	19	5,693,507		Daniell et al.	12-02-1997
	20	5,753,475		Houck	05-19-1998
	21	5,811,636		Hanna et al.	09-22-1998
	22	5,935,824		Sgarlato	08-10-1999
	23	6,018,030		Ferrari et al.	01-25-2000

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office	Number ⁴	Kind Code ² (if known)			
	24	EPO	0255378	B1	Kridl et al.	04-13-1994	
	25	PCT	WO 95/16783		McBride et al.	06-22-1995	
	26	PCT	WO 95/24492		McBride et al.	09-14-1995	
	27	PCT	WO 95/24493		McBride et al.	09-14-1995	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	28	ASTAWAN et al., Effects of Angiotensin I-Converting Enzyme Inhibitory Substances Derived from Indonesian Dried-salted fish on Blood Pressure of Rats, <i>Bioscience, Biotech., and Biochem.</i> , Mar. 1995, pp. 425-29, Vol. 59, No. 3, Japan Society for Bioscience, Biotechnology and Agrochemistry, Japan	
	29	BEAUCAGE et al., Deoxynucleoside Phosphoramidites-A New Class Of Key Intermediates For Deoxypolynucleotide Synthesis, <i>Tetra. Letters</i> , 1981, pp. 1859-62, Vol. 22, No. 20	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

PTO/SB/08A				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/804,733
				Filing Date	March 13, 2001
				Confirmation Number	2031
				First Named Inventor	Qi Wang et al.
Sheet	3	of	4	Attorney Docket No.	MTC 6614.1

	30	CLARK et al., Mutations at the Transit Peptide-Mature Protein Junction Separate Two Cleavage Events during Chloroplast Import of the Chlorophyll a/b-binding Protein, <i>J. Biol. Chem.</i> , Oct. 1989, pp. 17544-50, Vol. 264, No. 29, Amer. Society for Biochemistry and Molecular Biology, Inc., USA	
	31	COLMAN, Production of therapeutic proteins in the milk of transgenic livestock, <i>Mammary Development and Cancer</i> , 1998, pp. 141-47, Vol.63, The Biochemical Society, London, Great Britain	
	32	DALRYMPLE et al., Genetically Modified Livestock for the Production of Human Proteins in Milk, <i>Biotechnology and Genetic Engineering Reviews</i> , Apr. 1998, pp. 33-49, Vol. 15, Intercept Ltd., United Kingdom	
	33	DELLA-CIOPPA et al., Protein Trafficking in Plant Cells, <i>Plant Physiol.</i> , 1987, pp. 965-68, Vol. 84	
	34	FISK et al., The introduction and expression of transgenes in plants, <i>Scientia Horticulture</i> , Aug. 1993, pp. 5-36, Vol. 55, Nos. 1-2, Elsevier Science Publishers B.V.	
	35	GASSER et al., Genetically Engineering Plants for Crop Improvement, <i>Science</i> , Jun. 1989, pp. 1293-99, Vol. 244, Amer. Assoc. for the Advancement of Science, Washington, D.C., USA	
	36	LAM et al., Tetramer of a 21-Base Pair Synthetic Element Confers Seed Expression and Transcriptional Enhancement in Response to Water Stress and Absciscic Acid, <i>J. Biol. Chem.</i> , Sep. 1991, pp. 17131-35, Vol. 266, No. 26, Amer. Society for Biochemistry & Molecular Biology, USA	
	37	MESSING, New M13 Vectors for Cloning, <i>Methods in Enzymology</i> , 1983, pp. 20-79, Vol. 101, Academic Press, Inc.	
	38	NAWRATH et al., [insert title of article], <i>Proc. Natl. Acad. Sci.</i> , Dec. 1994, pp. 12760-64, Vol. 91, No. 26, National Academy of Sciences, Washington, D.C., USA	
	39	ODELL et al., Identification of DNA sequences required for activity of the cauliflower mosaic virus 35S promoter, <i>Nature</i> , Feb. 1985, pp. 810-12, Vol. 313, No. 6005, Macmillan Journals, Ltd.	
	40	PADGETTE et al., Development, Identification, and Characterization of a Glyphosate-Tolerant Soybean Line, <i>Crop Science</i> , 1995, pp. 1451-61, Vol. 35, No. 5, Crop Science Society of America, Inc., USA	
	41	PERRY et al., Transgenesis in chickens, <i>Transgenic Research</i> , May 1993, pp. 126-33, Vol. 2, No. 3, Chapman & Hall, London	
	42	POTRYKUS, Gene Transfer to Plants: Assessment of Published Approaches and Results, <i>Annual Rev. of Plant Phys. and Plant Molec. Biol.</i> , 1991, pp. 205-23, Annual Reviews, Inc., Palo Alto, CA, USA	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231
DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231

PTO/SB/08A				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	09/804,733
				Filing Date	March 13, 2001
				Confirmation Number	2031
				First Named Inventor	Qi Wang et al.
Sheet	4	of	4	Attorney Docket No.	MTC 6614.1

	43	RICHINS et al., Sequence of figwort mosaic virus DNA (caulimovirus group), <i>Nucleic Acids Research</i> , 1987, pp. 8451-66, Vol. 15, No. 20, IRL Press	
	44	ROMER et al., Expression of the Genes Encoding the Early Carotenoid Biosynthetic Enzymes in <i>Capsium Annuum</i> , <i>Biochem. and Biophys. Research Communications</i> , Nov. 1993, pp. 1414-21, Vol. 196, No. 3, Academic Press, Inc.	
	45	RUDOLPH, Biopharmaceutical production in transgenic livestock, Sep. 1999, pp. 367-74, Vol. 17, No. 9, Elsevier Science Ltd.	
	46	SADLER et al., Plasmids Containing Many Tandem Copies Of A Synthetic Lactose Operator, <i>Gene</i> , Jan. 1980, pp. 279-301, Vol. 8, No. 3, Elsevier/North-Holland Biomedical Press	
	47	SHAH et al., Engineering Herbicide Tolerance in Transgenic Plants, <i>Science</i> , Jul. 1986, pp. 478-81, Vol. 25, No. 233, American Association for the Advancement of Science, Washington, D.C., USA	
	48	STAUB et al., Accumulation of D1 polypeptide in tobacco plastids is regulated via the untranslated region of the pshA mRNA. <i>The EMBO Journal</i> , 1993, pp. 601-06, Vol. 12, No. 2, Oxford University Press	
	49	SUETSUNA, Immunostimulating Peptides Derived from Sardine Muscle and Soybean Protein; Amino Acid Sequence, Synthesis and Biological Properties, <i>Clinical Report</i> , Dec. 1991, pp. 4773-84, Vol. 25	
	50	SVAB et al., Stable transformation of plastids in higher plants, <i>Proc. Natl. Acad. Sci.</i> , Nov. 1990, pp. 8526-30, Vol. 87, No. 21, Natl. Academy of Sciences, USA	
	51	SVAB et al., [insert article title], <i>Proc. Natl. Acad. Sci.</i> , 1993, pp. 913-17, Vol. 90, No. 3, Natl. Academy of Sciences, USA	
	52	VON HEIJNE et al., CHLPEP-A Database of Chloroplast Transit Peptides, <i>Plant Molec. Biology Reporter</i> , May 1991, pp. 104-26, Vol. 9, No. 2	
	53	WALDEN et al., Gene-transfer and plant-regeneration techniques, <i>Biotechnology</i> , Sep. 1995, pp. 324-31, Vol. 13, No. 4, Elsevier Science Ltd.	
	54	WHITE et al., Concatemer Chain Reaction: A Taq DNA Polymerase-Mediated Mechanism for Generating Long Tandemly Repetitive DNA Sequences, <i>Anal. Biochem.</i> , Dec. 1991, pp. 184-90, Vol. 199, No. 2, Academic Press, Inc.	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231
DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

PTO/SB/08A

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	09/804,733
Filing Date	March 13, 2001
Confirmation Number	2031
First Named Inventor	Qi Wang et al.
Attorney Docket No.	MTC 6614.1

Sheet

1

of

4

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
	1	4,458,066		Caruthers et al.	07-03-1984
	2	4,683,195		Mullis et al.	07-28-1987
	3	4,683,202		Mullis	07-28-1987
	4	4,703,004		Hopp et al.	10-27-1987
	5	4,782,137		Hopp et al.	11-01-1988
	6	4,800,159		Mullis et al.	01-24-1989
	7	4,845,341		Rae	07-04-1989
	9	4,873,191		Wagner et al.	10-10-1989
	9	4,973,679		Caruthers et al.	11-27-1990
	10	5,071,955		Mimura et al.	12-10-1991
	11	5,106,739		Comai et al.	04-21-1992
	12	5,149,657		Maugh et al.	09-22-1992
	13	5,238,932		Flynn et al.	08-24-1993
	14	5,243,038		Ferrari et al.	09-07-1993
	15	5,451,513		Maliga et al.	09-19-1995
	16	5,576,198		McBride et al.	11-19-1996
	17	5,594,115		Sharma	01-14-1997

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement. This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO Assistant Commissioner for Patents, Washington, D.C. 20231.